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10/674,443	09/29/2003	Richard A. Falcioni	6674P001	4131

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EXAMINER	
WANG, JIN CHENG	
ART UNIT	**PAPER NUMBER**
2628	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/674,443	FALCIONI, RICHARD A.	
	Examiner	Art Unit	
	Jin-Cheng Wang	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 21-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 21-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission, filed 1/8/2007, has been considered. Claims 8-20 and 33-42 have been canceled. Claims 1, 21, and 29 have been amended. Claims 1-7 and 21-32 are pending in the present application.

Response to Argument

Applicant's arguments, filed 1/8/2007, have been considered but are not moot in view of the new ground of rejection.

The claim 1 recites the claim limitation of "wherein the plurality of zones abut one another thereby eliminating intervening spaces to essentially form a solid block, some of the plurality of zones being periphery zones that together define the periphery of the solid block, and the rest of the plurality of zones being internal zones that are within an interior region of the solid block that is enclosed by the periphery."

Applicant's arguments, filed 1/8/2007, set forth a statement in Paragraph 2 of Page 7, that the claim amendments are supported in the Specification at paragraph 0030. Applicant interpreted according to Fig. 6 that regions 533, 540, 542, 544, and 546 are part of the periphery

of the matrix 408 and regions 530, 531 and 532 are interior regions of the matrix and the interior regions 530, 531, and 532 are surrounded by the other regions of the matrix that define the periphery.

Applicant speculates "an interior region of the solid block" and "the periphery of the solid block". Applicant's specification does not support the claim limitation of "an interior region of the solid block" and "the periphery of the solid block" set forth in the claim 1. For example, the speculated symbol for the alphanumeric character "f" or "F" does not have any interior region of the solid block as claimed, nor does it have periphery of the solid block as claimed. Moreover, there are "white" spaces or gaps among the features that cannot provide a solid block.

While the Examiner does not concur with applicant's arguments, however, even if the claim limitation is interpreted according to the applicant's arguments, the claim 1 is not supported by the specification for the reasons below. The new amendments however are not supported by applicant's specification. According to the applicant's specification, Fig. 6 and Paragraph 0030, the solid block comprises the interior regions 530, 531 and 532. However, the regions 530, 531, and 532 are holes and the claimed plurality of zones having the interior regions 530, 531 and 532 are displayed white. The black regions together with these white regions cannot form a "solid block" as claimed. Moreover, the one or more zones selected for most of the symbols in Fig. 7 are not "interior zones". There is no disclosure in applicant's specification of "an interior region of the solid block". For example, the speculated symbol for the alphanumeric character "f" or "F" does not have interior region of the solid block as claimed.

In contrary to applicant's arguments that the specification supports the claimed amendment set forth in the claim 1, applicant's specification does not support the claimed amendment set forth in the claim 1.

Moreover, the claim feature of "wherein the plurality of zones abut one another thereby eliminating intervening spaces to essentially form a solid block, some of the plurality of zones being periphery zones that together define the periphery of the solid block, and the rest of the plurality of zones being internal zones that are within an interior region of the solid block that is enclosed by the periphery" for additional reasons set forth below. This new claim limitation was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

For example, in Paragraph 0030 of applicant's specification, it is stated, "there may be 19 different features needed to compose all the letters of...a template or matrix is created based on the entire set of features, by **abutting** ***the features*** to each other in such a way that each feature can be **visually distinguished** from the others. *This template may then be overlayed with a* ***smaller****, second matrix (e.g., a 12-zone matrix)*...Each character is indicated by a respective selection of one or more (and in most cases, no more than two) regions or zones in a matrix." In Paragraph 0038, it is stated, "almost all of the assembled features are 'stretched' so that they abut one another, eliminating the intervening spaces and thereby resulting in a stretched matrix 208 in Fig. 2. Note also that the stretched features become the boundaries of the regions in the matrix 208 in such a way that most of the regions line up in rows and columns." However, Fig. 2 shows 19 features. *The 19 features, rather than the selection regions*, have been stretched so that they abut one another, eliminating the intervening spaces. Moreover, according to applicant's Figs. 7,

8a and 9, the regions (the 12-zone matrix) are constructed with intervening spaces with the contrasting colors, and there is no way to form "a solid block" or essentially "a solid block" with the regions due to the separation of the regions in the 12-zone matrix (See Fig. 9 of applicant's specification) and also due to the separation of the 12 zones by some of the 19 features.

Therefore, applicant's specification does not support the claim limitations of "a solid block", "the plurality of zones being periphery zones that together define the periphery of the solid block", "internal zones that are within an interior region of the solid block that is enclosed by the periphery."

Finally, applicant's specification does not support "contrasting the combination with the remainder of said plurality of zones so that the combination is essentially removed leaving behind a graphic symbol in the solid block that resembles the desired character" by "receiving a user's selection of a combination of one or more zones from a plurality of zones". For example, applicant speculates that the character in Fig. 7 is formed according to the claim language set forth in the claim 1. Applicant speculates that the character "m" is formed by removing a combination of only one zone. However, the symbol for "m" in Fig. 7 is not formed by a selection of a combination of one zone wherein two additional features have been selected as well. Removing a combination of only one zone does not provide a graphic symbol in the solid block. Moreover, applicant's remainder given in Fig. 7 does not nearly positively define a plurality of features of a respective one of the alphanumeric characters because the speculated symbol in Fig. 7 does not nearly resemble the alphanumeric character, particularly "m" or "r", or "t" or "v" or "w" or "y".

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-7 and 21-32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 21-28:

Claim 21 recites machine-readable medium having data stored therein. The claimed machine readable medium is not necessarily a computer readable medium. The claimed data are not necessarily computer executable instructions. There is no structural and functional interrelationship between the instructions and the rest of the computer to permit the instructions' functionality to be realized. Claim 21 is, thus, non-statutory.

Additionally, since claim 21 includes a 101 judicial exception, claim 21 must be for a practical application of the judicial exception. As is, claim 21 failed to recite either a physical transformation or produces a useful and tangible result. Thus, claim 21 is also non-statutory for this reason.

Claims 22-28 are non-statutory for the same reasons discussed above.

Claims 29-32:

The claimed logic set forth in the claim 29 is not necessarily computer executable instruction embodied in a computer-readable medium. There is no structural and functional

interrelationship between the logic and the rest of the computer to permit the instructions' functionality to be realized. Claim 29 is, thus, non-statutory.

Additionally, claim 29 applies a computer program as part of a seemingly patentable apparatus, however, claim 29 in reality seeks patent protection for the computer program as evidenced by claim 21 in the abstract. Computer program per se is neither computer components nor statutory process. Thus, claim 29 is non-statutory.

Claims 30-32 are non-statutory for the same reasons discussed above.

Claims 1-7:

Additionally, claim 1 applies a computer program as part of a seemingly patentable method, however, claim 1 in reality seeks patent protection for the computer program as evidenced by claim 1 in the abstract. Computer program per se is neither computer components nor statutory process. Thus, claim 1 is non-statutory.

Additionally, since claim 1 includes a 101 judicial exception, claim 1 must be for a practical application of the judicial exception. As is, claim 1 failed to recite either a physical transformation or produces a useful and tangible result. Thus, claim 1 is also non-statutory for this reason.

Claims 2-7 are not statutory for the same reasons discussed above.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-7, and 21-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1-7:

The claim 1 recites the claim limitation of "wherein the plurality of zones abut one another thereby eliminating intervening spaces to essentially form a solid block, some of the plurality of zones being periphery zones that together define the periphery of the solid block, and the rest of the plurality of zones being internal zones that are within an interior region of the solid block that is enclosed by the periphery."

Applicant's arguments, filed 1/8/2007, set forth a statement in Paragraph 2 of Page 7, that the claim amendments are supported in the Specification at paragraph 0030. Applicant interpreted according to Fig. 6 that regions 533, 540, 542, 544, and 546 are part of the periphery of the matrix 408 and regions 530, 531 and 532 are interior regions of the matrix and the interior regions 530, 531, and 532 are surrounded by the other regions of the matrix that define the periphery.

Applicant speculates "an interior region of the solid block" and "the periphery of the solid block". Applicant's specification does not support the claim limitation of "an interior region of the solid block" and "the periphery of the solid block" set forth in the claim 1. For example, the speculated symbol for the alphanumeric character "f" or "F" does not have any interior region of the solid block as claimed, nor does it have periphery of the solid block as

claimed. Moreover, there are "white" spaces or gaps among the features that cannot provide a solid block.

While the Examiner does not concur with applicant's arguments, however, even if the claim limitation is interpreted according to the applicant's arguments, the claim 1 is not supported by the specification for the reasons below. The new amendments however are not supported by applicant's specification. According to the applicant's specification, Fig. 6 and Paragraph 0030, the solid block comprises the interior regions 530, 531 and 532. However, the regions 530, 531, and 532 are holes and the claimed plurality of zones having the interior regions 530, 531 and 532 are displayed white. The black regions together with these white regions cannot form a "solid block" as claimed. Moreover, the one or more zones selected for most of the symbols in Fig. 7 are not "interior zones". There is no disclosure in applicant's specification of "an interior region of the solid block". For example, the speculated symbol for the alphanumeric character "f" or "F" does not have interior region of the solid block as claimed.

In contrary to applicant's arguments that the specification supports the claimed amendment set forth in the claim 1, applicant's specification does not support the claimed amendment set forth in the claim 1.

Moreover, the claim feature of "wherein the plurality of zones abut one another thereby eliminating intervening spaces to essentially form a solid block, some of the plurality of zones being periphery zones that together define the periphery of the solid block, and the rest of the plurality of zones being internal zones that are within an interior region of the solid block that is enclosed by the periphery" for additional reasons set forth below. This new claim limitation was

not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

For example, in Paragraph 0030 of applicant's specification, it is stated, "there may be 19 different features needed to compose all the letters of...a template or matrix is created based on the entire set of features, by **abutting *the features*** to each other in such a way that each feature can be **visually distinguished** from the others. *This template may then be overlayed with a **smaller**, second matrix (e.g., a 12-zone matrix)*...Each character is indicated by a respective selection of one or more (and in most cases, no more than two) regions or zones in a matrix." In Paragraph 0038, it is stated, "almost all of the assembled features are 'stretched' so that they abut one another, eliminating the intervening spaces and thereby resulting in a stretched matrix 208 in Fig. 2. Note also that the stretched features become the boundaries of the regions in the matrix 208 in such a way that most of the regions line up in rows and columns." However, Fig. 2 shows 19 features. *The 19 features, rather than the selection regions*, have been stretched so that they abut one another, eliminating the intervening spaces. Moreover, according to applicant's Figs. 7, 8a and 9, the regions (the 12-zone matrix) are constructed with intervening spaces with the contrasting colors, and there is no way to form "a solid block" or essentially "a solid block" with the regions due to the separation of the regions in the 12-zone matrix (See Fig. 9 of applicant's specification) and also due to the separation of the 12 zones by some of the 19 features.

Therefore, applicant's specification does not support the claim limitations of "a solid block", "the plurality of zones being periphery zones that together define the periphery of the solid block", "internal zones that are within an interior region of the solid block that is enclosed by the periphery."

Finally, applicant's specification does not support "contrasting the combination with the remainder of said plurality of zones so that the combination is essentially removed leaving behind a graphic symbol in the solid block that resembles the desired character" by "receiving a user's selection of a combination of one or more zones from a plurality of zones". For example, applicant speculates that the character in Fig. 7 is formed according to the claim language set forth in the claim 1. Applicant speculates that the character "m" is formed by removing a combination of only one zone. However, the symbol for "m" in Fig. 7 is not formed by a selection of a combination of one zone wherein two additional features have been selected as well. Removing a combination of only one zone does not provide a graphic symbol in the solid block. Moreover, applicant's remainder given in Fig. 7 does not nearly positively define a plurality of features of a respective one of the alphanumeric characters because the speculated symbol in Fig. 7 does not nearly resemble the alphanumeric character, particularly "m" or "r", or "t" or "v" or "w" or "y".

The claims 2-7 depend upon the claim 1 and are rejected due to their dependency on the claim 1.

Claims 21-28:

The claim 21 recites the claim limitation of "a control area that is essentially a solid block" and "wherein some of the plurality of regions together define the periphery of the control area which surrounds others of the plurality of regions that are in the interior of the control area, and wherein for each generated character that has a closed curve as a feature, the respective selection to which that character is mapped includes one of the interior regions of the control

area." This new claim limitation was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant speculates "one of the interior regions of the control area" and "periphery of the control area". Applicant's specification does not support the claim limitation of "one of the interior regions of the control area" and "periphery of the control area" set forth in the claim 21. For example, the speculated symbol for the alphanumeric character "f" or "F" does not have any interior region of the control area as claimed, nor does it have any periphery of the control area as claimed. Moreover, there are "white" spaces or gaps among the features that cannot provide a closed curve.

For example, in Paragraph 0030 of applicant's specification, it is stated, "there may be 19 different features needed to compose all the letters of...a template or matrix is created based on the entire set of features, by **abutting** *the features* to each other in such a way that each feature can be **visually distinguished** from the others. *This template may then be overlayed with a smaller, second matrix (e.g., a 12-zone matrix)*...Each character is indicated by a respective selection of one or more (and in most cases, no more than two) regions or zones in a matrix." In Paragraph 0038, it is stated, "almost all of the assembled features are 'stretched' so that they abut one another, eliminating the intervening spaces and thereby resulting in a stretched matrix 208 in Fig. 2. Note also that the stretched features become the boundaries of the regions in the matrix 208 in such a way that most of the regions line up in rows and columns." However, Fig. 2 shows 19 features. *The 19 features, rather than the selection regions*, have been stretched so that they abut one another, eliminating the intervening spaces. Moreover, according to applicant's Figs. 7,

8a and 9, the regions (the 12-zone matrix) are constructed with intervening spaces with the contrasting colors, and there is no way to form a solid block with the regions due to the separation of the regions in the 12-zone matrix (See Fig. 9 of applicant's specification). The claims 22-28 depend upon the claim 21 and are rejected due to their dependency on the claim 21.

Finally, applicant's specification does not support "thereby eliminating intervening spaces to form a control area that is essentially a solid block, so that if the respective selection of regions were to be contrasted with the remainder of the plurality of regions, then said remainder, and not said selection of regions, would positively define a plurality of features of a respective one of the alphanumeric characters". For example, applicant speculates that the symbol in Fig. 7 is formed according to the claim language set forth in the claim 21. However, the so called symbol for the alphanumeric character "m" in Fig. 7 is not formed by a selection of a combination of one or more zones wherein only one region is selected and two additional features (as opposed to regions/zones) have been selected as well. Removing a combination of only one zone/region does not provide a graphic symbol in the solid block. Moreover, applicant's remainder given in Fig. 7 does not nearly positively define a plurality of features of a respective one of the alphanumeric characters because the speculated symbol in Fig. 7 does not nearly resemble the alphanumeric character, particularly "m" or "r", or "t" or "v" or "w" or "y".

Claims 29-42:

Claims 29-42 are subject to the same rationale of rejection set forth in the claims 21-28 discussed above.

Claims 1-9, 21-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1-7:

For example, the base claim 1 recites "a user's selection of a combination of one or more zones from a plurality of zones". A combination of one or more zones are selected means that any combination of one or more zones could be selected by the user, as opposed to only some specific combination of zones from a plurality of combinations of one or more zones could be selected. There are so many combinations that can be constructed by selecting one or more zones from the plurality of zones. Not all combinations are selectable so that the remainder resembles a desired character. For example, applicant's Fig. 7 only presents a limited number of combinations that are selectable, i.e., a total of 36 combinations that are selectable. Therefore, the metes and bounds of the coverage of at least base claim 1 cannot be ascertained. The claims 2-7 depend upon the claim 1 and are rejected due to their dependency on the claim 1.

Claims 21-28:

The claim 21 recites "**maps each of a plurality of alphanumeric characters to a respective selection of one or more regions from a plurality of regions**". For the same reasons discussed above, the remainder, rather than the selection, is mapped to each of a plurality of alphanumeric characters. Therefore, the metes and bounds of the coverage of at least base claim

21 cannot be ascertained. The claims 22-28 depend upon the claim 21 and are rejected due to their dependency on the claim 21.

Claims 29-32:

The claim 29 recites "logic that implements **an association between each of a plurality of alphanumeric characters and a respective combination of one or more regions selected from a matrix of regions** that have been defined on the display screen". For the same reasons discussed above, the remainder, rather than the selection, is mapped to each of a plurality of alphanumeric characters. The association is between the remainder, rather than the selection/combination of one or more regions selected from a matrix of regions and each of a plurality of alphanumeric characters. As evidenced in the claims 31-32, each of the alphanumeric characters is associated with the remainder, not the selected regions. Therefore, the metes and bounds of the coverage of at least base claim 29 cannot be ascertained. The claims 30-32 depend upon the claim 29 and are rejected due to their dependency on the claim 29.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 and 21-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 21-28:

The claim 21 recites the claim limitation of "a plurality of regions that abut one another thereby eliminating intervening spaces to form a control area that is essentially a solid block." This new claim limitation failed to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As discussed above, the features, rather than the regions, abut one another, eliminating the intervening spaces. The claims 22-28 depend upon the claim 21 and are rejected due to their dependency on the claim 21.

Claims 1-7:

The claim 1 recites the new claim limitation of "the plurality of zones abut one another, thereby eliminating intervening spaces to essentially form a solid block". The claim 1 is subject to the same rationale of rejection set forth in the claim 21. The claims 2-7 depend upon the claim 1 and are rejected due to their dependency on the claim 1.

Claims 29-32:

Claims 29-32 are subject to the same rationale of rejection set forth in the claims 21-28 discussed above.

Claims 1-9, 21-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for additional reasons set forth below.

Claims 1-7:

For example, the base claim 1 recites "a user's selection of a combination of one or more zones from a plurality of zones". A combination of one or more zones are selected means that any combination of one or more zones could be selected by the user, as opposed to only some specific combination of zones from a plurality of combinations of one or more zones could be selected. There are so many combinations that can be constructed by selecting one or more zones from the plurality of zones. Not all combinations are selectable so that the remainder resembles a desired character. For example, applicant's Fig. 7 only presents a limited number of combinations that are selectable, i.e., a total of 36 combinations that are selectable. The claims 2-7 depend upon the claim 1 and are rejected due to their dependency on the claim 1.

Claims 21-28:

The claim 21 recites "**maps each of a plurality of alphanumeric characters to a respective selection of one or more regions from a plurality of regions**". For the same reasons discussed above, the remainder, rather than the selection, is mapped to each of a plurality of alphanumeric characters. The claims 22-28 depend upon the claim 21 and are rejected due to their dependency on the claim 21.

Claims 29-32:

The claim 29 recites "logic that implements **an association between each of a plurality of alphanumeric characters and a respective combination of one or more regions selected from a matrix of regions** that have been defined on the display screen". For the same reasons discussed above, the remainder, rather than the selection, is mapped to each of a plurality of alphanumeric characters. The association is between the remainder, rather than the selection/combination of one or more regions selected from a matrix of regions and each of a

plurality of alphanumeric characters. As evidenced in the claims 31-32, each of the alphanumeric characters is associated with the remainder, not the selected regions. The claims 30-32 depend upon the claim 29 and are rejected due to their dependency on the claim 29.

Due to the §112 rejection discussed above, the limitations set forth in the claim invention carry no patentable weights for the reasons of the enablement and description requirements set forth in the §112 rejection. Moreover, the claim invention is subject to the broadest reasonable interpretation consistent with applicant's specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7 and 21-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramian U.S. Patent Application Publication No. 2004/0239624 (hereinafter Ramian) in view of Curtin et al US Patent No. 4,727,357 (hereinafter Curtin).

Re Claims 1, 21-26, 29-30:

(a) Ramian teaches a method for generating a desired alphanumeric character, comprising:

Receiving a user's selection of a combination of one or more zones from a plurality of zones, wherein the plurality of zones abut one another, thereby eliminating intervening spaces to essentially form a solid block, some of the plurality of zones being periphery zones that together define the periphery of the solid block, and the rest of the plurality of zones being internal zones that are within an interior region of the solid block that is enclosed by the periphery (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149); and

Contrasting the combination with the remainder of said plurality of zones so that the combination is essentially **selected** leaving behind a graphic symbol that resembles the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

(b) However, Ramian does not implicitly teach, "the remainder resembles the desired character".

(c) Curtin teaches the claim limitation of "the combination is essentially removed leaving behind a graphic symbol that resembles the desired character". For example, Curtin discloses in Fig. 6 un-selecting the bars 14 and 16 so that the remainder bars 6, 8, 10, 12, 20, 18, 22 and 24 represent or resemble the desired character "A". See column 2, lines 46-67 and column 3, lines 1-20. It is stated, "...**a user contacts selected normally activated bars to turn off their lights**. It has been found in developing the present invention that **the alphanumeric characters can be more rapidly formed by placing at least the bars forming the outer box pattern and possibly the bars extending horizontally across such box pattern in a normally activated condition. In this manner, it normally takes fewer key strokes to form each alphanumeric character**." That is to say, the bars, 6, 8, 10, 12, 20, 18, 22, 24, 14, 16 are

normally lighted. The alphanumeric character "A" is formed with a fewer key strokes on the bars 14, 16 to deactivate the lights. Curtin thus discloses the claim limitation that the plurality of zones abut one another, thereby eliminating intervening spaces to essentially form a solid block, some of the plurality of zones being periphery zones that together define the periphery of the solid block, and the rest of the plurality of zones being internal zones that are within an interior region of the solid block that is enclosed by the periphery. See also column 4, lines 30-67 and column 5, lines 34-44.

(d) It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Ramain's invention because Ramain's remainder of the plurality of zones corresponds to applicant's combination of one or more zones from the plurality of zones and Ramain's selection of the plurality of zones corresponds to applicant's remainder of the plurality of zones. Ramain teaches that, if the combination is contrasted with the remainder of said plurality of zones. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of zones by illuminating the curves within such combination which must be contrasted with the remainder of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

On the other hand, in Ramain, by positively illuminating the curves within a combination of one or more zones from a plurality of zones, Ramain thereby selects the remainder of the plurality of zones as applicant's combination of one or more zones from a plurality of zones and therefore Ramain implicitly teaches contrasting Ramain's remainder with the Remain's combination of said plurality of zones so that the remainder is essentially removed leaving

behind a graphic symbol that resembles the desired character. It is noted that Remain's remainder corresponds to applicant's combination and Remain's combination corresponds to applicant's remainder. Applicant has effectively reversed the Remain's parts. It is also noted that both remainder and the combination represent one or more zones from a plurality of zones and the remainder and the combination added together are the same as the plurality of zones.

Ramain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the combination of the plurality of zones indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder can be essentially removed leaving behind a graphic symbol that resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted and thus is also selected. Therefore, the remainder may also be the combination and vice versa.

Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

Therefore, in view of Curtin's patent, which has been issued long time ago, one of the ordinary skill in the art would have used Curtin's idea of selecting a combination of one or more bars to be deactivated while the remainder remain illuminated. Having the combined teaching of

Curtin and Ramain, one of the ordinary skill in the art would have selected a combination of one or more zones of Ramain so that the remainder is illuminated while the combination of one or more zones being selected to be un-illuminated or deactivated from illumination in view of Curtin so that the combination is essentially removed leaving behind a graphic symbol that resembles the desired character such as the character "A". Curtin further discloses the claim limitation that the plurality of zones abut one another, thereby eliminating intervening spaces to essentially form a solid block, some of the plurality of zones being periphery zones that together define the periphery of the solid block, and the rest of the plurality of zones being internal zones that are within an interior region of the solid block that is enclosed by the periphery (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

(e) One of the ordinary skill in the art would have been motivated to construct a method for generating alphanumeric characters in accordance with Curtin's selection of the combination of bars so that the remainder represents the desired alphanumeric character (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

Claim 2:

The claim 2 encompasses the same scope of invention as that of the claim 1 except additional claim limitation that the plurality of zones are arranged so that the periphery around

them is the maximum extent of every graphic symbol that appears when a combination of one or more zones is contrasted. However, Ramian and Curtin further disclose the claim limitation of the plurality of zones are arranged so that the periphery around them is the maximum extent of every graphic symbol that appears when a combination of one or more zones is contrasted (*Ramain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the remainder of the unselected areas of the plurality of zones indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted. Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character. See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149*). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 3:

The claim 3 encompasses the same scope of invention as that of the claim 1 except additional claim limitation of the plurality of zones forming a matrix of solid elements that are of

the same color. However, Ramian and Curtin further disclose the claim limitation of the plurality of zones forming a matrix of solid elements that are of the same color (Figs. 1-3). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 4:

The claim 4 encompasses the same scope of invention as that of the claim 3 except additional claim limitation of the matrix having twelve zones arranged in four rows and three columns. However, Ramian and Curtin further disclose the claim limitation of the matrix having twelve zones arranged in four rows and three columns (Figs. 1-2). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 5:

The claim 5 encompasses the same scope of invention as that of the claim 3 except additional claim limitation that the respective combination of zones has no more than two zones, and wherein each one of the 26 letters of the English alphabet and 10 decimal numerals is represented by a different combination of zones. However, Ramian and Curtin further disclose the claim limitation that the respective combination of zones has no more than two zones, and wherein each one of the 26 letters of the English alphabet and 10 decimal numerals is

represented by a different combination of zones (*This is because the character "z" can be traced within one zone of the matrix and all the English alphabets and 10 decimal numerals can be represented by the matrix; See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149).* See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 6:

The claim 6 encompasses the same scope of invention as that of the claim 3 except additional claim limitation of providing a plurality of mnemonic aids that represent a plurality of different alphanumeric characters, wherein each aid being depicted by a matrix of the plurality of zones that shows the respective combination. However, Ramian and Curtin further disclose the claim limitation of providing a plurality of mnemonic aids that represent a plurality of different alphanumeric characters, wherein each aid being depicted by a matrix of the plurality of zones that shows the respective combination (*See Figs. 1-3; Paragraph 007, 0030, 0043, 0072, 0085, 0108, 0109, 0130, 0139, 0147, 0149).* See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 7:

The claim 7 encompasses the same scope of invention as that of the claim 1 except additional claim limitation of visually contrasting a combination of one or more of said plurality of zones with unselected ones of said plurality of zones, as the combination is being selected by a person. However, Ramian and Curtin further disclose the claim limitation of visually contrasting a combination of one or more of said plurality of zones with unselected ones of said plurality of zones, as the combination is being selected by a person. Ramian discloses visually contrasting the combination of zones with the selected curves/traces illuminated with the unselected zones un-illuminated wherein the combination of the zones are selected by a person with for example a stylus (*See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149*). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Re Claims 27-28 and 31-32:

Ramain and Curtin teach that, if the combination is contrasted with the remainder of said plurality of zones. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of zones by illuminating the curves within such combination which must be contrasted with the remainder of zones so that the drawn the curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for

processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected zones for generating graphic symbols with the stylus so that the remainder of the unselected zones resembles the desired character because Ramain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the remainder of the unselected areas of the plurality of zones indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted. Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

Curtin teaches the claim limitation of "the combination is essentially removed leaving behind a graphic symbol that resembles the desired character". For example, Curtin discloses in Fig. 6 un-selecting the bars 14 and 16 so that the remainder bars 6, 8, 10, 12, 20, 18, 22 and 24 represent or resemble the desired character "A". See column 2, lines 46-67 and column 3, lines 1-20. It is stated, "...**a user contacts selected normally activated bars to turn off their lights.** It has been found in developing the present invention that **the alphanumeric characters can be**

more rapidly formed by placing at least the bars forming the outer box pattern and possibly the bars extending horizontally across such box pattern in a normally activated condition. In this manner, it normally takes fewer key strokes to form each alphanumeric character." That is to say, the bars, 6, 8, 10, 12, 20, 18, 22, 24, 14, 16 are normally lighted. The alphanumeric character "A" is formed with a fewer key strokes on the bars 14, 16 to deactivate the lights. See also column 4, lines 30-67 and column 5, lines 34-44.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Ramain's invention because Ramain's remainder of the plurality of zones corresponds to applicant's combination of one or more zones from the plurality of zones and Ramain's selection of the plurality of zones corresponds to applicant's remainder of the plurality of zones. Ramain teaches that, if the combination is contrasted with the remainder of said plurality of zones. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of zones by illuminating the curves within such combination which must be contrasted with the remainder of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

On the other hand, in Ramain, by positively illuminating the curves within a combination of one or more zones from a plurality of zones, Ramain thereby selects the remainder of the plurality of zones as applicant's combination of one or more zones from a plurality of zones and therefore Ramain implicitly teaches contrasting Ramain's remainder with the Remain's combination of said plurality of zones so that the remainder is essentially removed leaving behind a graphic symbol that resembles the desired character. It is noted that Remain's

remainder corresponds to applicant's combination and Remain's combination corresponds to applicant's remainder. Applicant has effectively reversed the Remain's parts. It is also noted that both remainder and the combination represent one or more zones from a plurality of zones and the remainder and the combination added together are the same as the plurality of zones.

Ramain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the combination of the plurality of zones indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder can be essentially removed leaving behind a graphic symbol that resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted and thus is also selected. Therefore, the remainder may also be the combination and vice versa.

Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

Therefore, in view of Curtin's patent, which has been issued long time ago, one of the ordinary skill in the art would have used Curtin's idea of selecting a combination of one or more bars to be deactivated while the remainder remain illuminated. Having the combined teaching of Curtin and Ramain, one of the ordinary skill in the art would have selected a combination of one

or more zones of Ramain so that the remainder is illuminated while the combination of one or more zones being selected to be un-illuminated or deactivated from illumination in view of Curtin so that the combination is essentially removed leaving behind a graphic symbol that resembles the desired character such as the character "A" (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

One of the ordinary skill in the art would have been motivated to construct a method for generating alphanumeric characters in accordance with Curtin's selection of the combination of bars so that the remainder represents the desired alphanumeric character (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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jcw